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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,790	12/04/2001	Tomoaki Masuda	04558/059001	9906

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EXAMINER
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DI GRAZIO, JEANNE A

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

# Office Action Summary

Application No.

10/006,790

Applicant(s)

MASUDA ET AL.

Examiner

Jeanne A. Di Grazio

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on RCE 11/12/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claims***

Claims 1-16 are pending. Claims 1 and 8-10 have been amended per Applicant's Amendment After Final of October 8, 2004.

### ***Priority***

Priority is not claimed.

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 8, 2004 has been entered.

### ***Claim Objections***

Claim 1 is objected to because of the following informalities:

As to claim 1, Applicant recites "the adhesive force between the adhesive layer and the stretched norbornene-based resin film is not smaller than 10N/20mm."

Applicant is claiming an adhesive force between an adhesive layer and a stretched norbornene-based resin film. Force is not measured in N/mm. Rather, the proper unit of force,

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for example, is a Newton (N) and not Newtons per millimeter. No meaningful analysis of such limitation may presently be made because of the inconsistent units.

Because the units do not properly match with what is claimed (a force), for examination purposes, the Examiner will consider this limitation to mean that the force between the adhesive layer and norbornene film is great or large.

Appropriate correction is **required**.

Claim 7 is objected to because of the following informalities:

As to claim 7, Applicant claims a stretching ratio with respect to the stretched norbornene-based resin film. However, a ratio means a comparison between two quantities. Applicant appears to be comparing a stretching ratio of only one quantity, and as such no meaningful analysis may be made of said stretching ratio.

For examination purposes, the Examiner interprets said limitation as consistent with the prior art of record.

Appropriate correction is **required**.

Claim 8 is objected to because of the following informalities:

As to claim 8, Applicant recites "the adhesive force between the adhesive layer and the stretched norbornene-based resin film is not smaller than 10N/20mm or more."

Applicant is claiming an adhesive force between an adhesive layer and a stretched norbornene-based resin film. Force is not measured in N/mm. Rather, the proper unit of force,

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for example, is a Newton (N) and not Newtons per millimeter. No meaningful analysis of such limitation may presently be made because of the inconsistent units.

Because the units do not properly match with what is claimed (a force), for examination purposes, the Examiner will consider this limitation to mean that the force between the adhesive layer and norbornene film is great or large.

Appropriate correction is **required**.

Claim 9 is objected to because of the following informalities:

As to claim 9, Applicant recites “the adhesive force between the adhesive layer and the stretched norbornene-based resin film is not smaller than 10N/20mm or more.”

Applicant is claiming an adhesive force between an adhesive layer and a stretched norbornene-based resin film. Force is not measured in N/mm. Rather, the proper unit of force, for example, is a Newton (N) and not Newtons per millimeter. No meaningful analysis of such limitation may presently be made because of the inconsistent units.

Because the units do not properly match with what is claimed (a force), for examination purposes, the Examiner will consider this limitation to mean that the force between the adhesive layer and norbornene film is great or large.

Appropriate correction is **required**.

Claim 10 is objected to because of the following informalities:

As to claim 10, Applicant recites “setting the adhesive force between the adhesive layer and the stretched norbornene-based resin film to be 10N/20mm or more.”

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Applicant is claiming an adhesive force between an adhesive layer and a stretched norbornene-based resin film. Force is not measured in N/mm. Rather, the proper unit of force, for example, is a Newton (N) and not Newtons per millimeter. No meaningful analysis of such limitation may presently be made because of the inconsistent units.

Because the units do not properly match with what is claimed (a force), for examination purposes, the Examiner will consider this limitation to mean that the force between the adhesive layer and norbornene film is great or large.

Appropriate correction is **required**.

Claim 14 is objected to because of the following informalities:

As to claim 14, Applicant claims a stretching ratio with respect to the stretched norbornene-based resin film. However, a ratio means a comparison between two quantities. Applicant appears to be comparing a stretching ratio of only one quantity, and as such no meaningful analysis may be made of said stretching ratio.

For examination purposes, the Examiner interprets said limitation as consistent with the prior art of record.

Appropriate correction is **required**.

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-10 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 5,543,948 (to Takahashi et al.) in view of Japanese Patent Application 05-086211 (to Matsui et al.).

As to claim 1 (amended), Takahashi teaches and discloses a thermoplastic saturated norbornene resin phase plate for liquid crystal displays and the like in which a thermoplastic saturated norbornene resin sheet is stretched and oriented (Abstract, entire patent, Column 3, Lines 65-67 and Column 4, Lines 3-4). Several layers become laminated (Column 5, Lines 48-51) and an adhesive, such as an acrylic adhesive is used for the lamination (Id. at Lines 52-65). Several layers are laminated, thus, it may be presumed that the adhesive has an adhesive property on its both surfaces.

Takahashi does not appear to explicitly specify the adhesive force between the adhesive and the stretched norbornene resin sheet.

However, Matsui teaches and discloses a bonding of a thermoplastic norbornene resin with respect to an adhesive (Entire Application but see also "Effect of the Invention" at page 5 of 5 of the machine translation at [0042]). Matsui states that the adhesive strength between the thermoplastic norbornene resin and adhesive layer is strong and as such Matsui obtains a good adhesive property. (Id.).

Matsui is evidence that ordinary workers in the field of liquid crystals would have found the reason, suggestion and motivation to maximize and optimize the bonding strength (or adhesive force) between a norbornene resin sheet and an adhesive layer for good adhesive properties especially if the laminate is to be used in the context of liquid crystal displays or polarizers where optical evenness becomes critical.

Therefore, it would have been obvious to one of ordinary skill in the art of liquid crystals at the time the invention was made to modify Takahashi in view of Matsui for good adhesive properties especially if the laminate is to be used in the context of liquid crystal displays or polarizers where optical evenness becomes critical.

As to claim 2, the limitation "wherein the norbornene-based resin film is subjected to a surface treatment and the adhesive layer is provided thereon" is a product-by-process limitation and is not considered.

Patentability does not rest merely upon the process by which the optical compensating film is made. Rather it must be the optical compensating film itself that is new, useful and not obvious.



As to claim 3, the limitation “wherein the surface treatment is a corona discharge treatment” is a product-by-process limitation and is not considered.

Patentability does not rest merely upon the process by which the optical compensating film is made. Rather it must be the optical compensating film itself that is new, useful and not obvious.

As to claim 4, the limitations concerning discharge frequency and discharge amount are product-by-process limitations and are not considered.

Patentability does not rest merely upon the process by which the optical compensating film is made. Rather it must be the optical compensating film itself that is new, useful and not obvious.

As to claims 5, 12, 15 and 16, the adhesive is an acrylic adhesive (Takahashi, See Claim 1 Rejection above).

As to claims 6 and 13, Takahashi teaches that the thickness of the norbornene resin sheet may range from 50-500  $\mu\text{m}$  (Column 4, Lines 29-30).

As to claims 7 and 14, Takahashi teaches and discloses draw ratios for the norbornene resin sheet (Id. at Column 4, Lines 50-56)(Please see Claim Objections above).

As to claim 8 (amended), Takahashi teaches and discloses a thermoplastic saturated norbornene resin phase plate for liquid crystal displays and the like in which a thermoplastic saturated norbornene resin sheet is stretched and oriented (Abstract, entire patent, Column 3, Lines 65-67 and Column 4, Lines 3-4). Several layers become laminated (Column 5, Lines 48-51) and an adhesive, such as an acrylic adhesive is used for the lamination (Id. at Lines 52-65).

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Several layers are laminated, thus, it may be presumed that the adhesive has an adhesive property on its both surfaces.

Takahashi also teaches that the phase plate may be adhered onto a polarizing plate (Column 5, Lines 52-65).

Takahashi does not appear to explicitly specify the adhesive force between the adhesive and the stretched norbornene resin sheet.

However, Matsui teaches and discloses a bonding of a thermoplastic norbornene resin with respect to an adhesive (Entire Application but see also "Effect of the Invention" at page 5 of 5 of the machine translation at [0042]). Matsui states that the adhesive strength between the thermoplastic norbornene resin and adhesive layer is strong and as such Matsui obtains a good adhesive property. (Id.).

Matsui is evidence that ordinary workers in the field of liquid crystals would have found the reason, suggestion and motivation to maximize and optimize the bonding strength (or adhesive force) between a norbornene resin sheet and an adhesive layer for good adhesive properties especially if the laminate is to be used in the context of liquid crystal displays or polarizers where optical evenness becomes critical.

Therefore, it would have been obvious to one of ordinary skill in the art of liquid crystals at the time the invention was made to modify Takahashi in view of Matsui for good adhesive properties especially if the laminate is to be used in the context of liquid crystal displays or polarizers where optical evenness becomes critical.

As to claim 9 (amended), Takahashi teaches and discloses a thermoplastic saturated norbornene resin phase plate for liquid crystal displays and the like in which a thermoplastic

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saturated norbornene resin sheet is stretched and oriented (Abstract, entire patent, Column 3, Lines 65-67 and Column 4, Lines 3-4). Several layers become laminated (Column 5, Lines 48-51) and an adhesive, such as an acrylic adhesive is used for the lamination (Id. at Lines 52-65). Several layers are laminated, thus, it may be presumed that the adhesive has an adhesive property on its both surfaces.

Takahashi also teaches that the phase plate may be incorporated into a liquid crystal display (Column 5, Lines 52-65). Takahashi also teaches that the phase plate may be adhered to a polarizer (Id.).

Takahashi does not appear to explicitly specify the adhesive force between the adhesive and the stretched norbornene resin sheet.

However, Matsui teaches and discloses a bonding of a thermoplastic norbornene resin with respect to an adhesive (Entire Application but see also "Effect of the Invention" at page 5 of 5 of the machine translation at [0042]). Matsui states that the adhesive strength between the thermoplastic norbornene resin and adhesive layer is strong and as such Matsui obtains a good adhesive property. (Id.).

Matsui is evidence that ordinary workers in the field of liquid crystals would have found the reason, suggestion and motivation to maximize and optimize the bonding strength (or adhesive force) between a norbornene resin sheet and an adhesive layer for good adhesive properties especially if the laminate is to be used in the context of liquid crystal displays or polarizers where optical evenness becomes critical.

Therefore, it would have been obvious to one of ordinary skill in the art of liquid crystals at the time the invention was made to modify Takahashi in view of Matsui for good adhesive

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properties especially if the laminate is to be used in the context of liquid crystal displays or polarizers where optical evenness becomes critical.

As to claim 10, the method for producing an optical compensating film would have been obvious in view of the device as taught and disclosed by Takahashi in view of Matsui.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 5,543,948 (to Takahashi et al.) in view of Japanese Patent Application 05-086211 (to Matsui et al.) and further in view of United States Patent 5,725,960 (to Konishi et al.).

As to claim 11, Takahashi does not appear to explicitly specify a corona discharge surface treatment.

Konishi teaches and discloses molded articles having a hard coat layer and a production method (Title, entire patent). Konishi teaches modifying the surface of a thermoplastic norbornene resin to obtain a given surface tension (Id.). The surface of the norbornene resin is treated by a corona discharge treatment because it is an efficient treatment (Column 3, Lines 55-67 and Column 4, Lines 1-5).

Konishi is evidence that ordinary workers in the field of liquid crystals would have found the reason, suggestion and motivation to treat a surface of a norbornene resin film via corona discharge treatment not only to improve surface tension but also because corona discharge is efficient.

Therefore, it would have been obvious to one of ordinary skill in the art of liquid crystals at the time the invention was made to modify Takahashi in view of Konishi for efficiency and improved surface tension.

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*Response to Arguments*

Applicant's arguments with respect to the above claims have been considered but are moot in view of the new ground(s) of rejection.

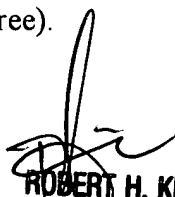
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeanne A. Di Grazio whose telephone number is (571)272-2289. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeanne Andrea Di Grazio  
Patent Examiner  
Art Unit 2871

JDG

  
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